

ABSTRACT OF THE DISCLOSURE

A system for determining the ratio of mass to charge of an ion including a pulsed ionizer, a high pressure co-linear ion guide/accelerator, and a mass analyzer. The pulsed ionizer generates intact analyte ions from a sample of matter to be
5 analyzed. The high pressure co-linear ion guide/accelerator is interfaced with the ion source for receipt of the intact ions of the sample. The ion guide/accelerator simultaneously dampens and linearly accelerates the intact ions in the substantial absence of fragmentation of the ions to provide a substantially continuous beam of the intact ions for mass analysis. The mass analyzer is connected to the ion
10 guide/accelerator for receipt of the beam of ions and determines the mass to charge ratio of the intact ions.